Extron Electronics
INTERFACING, SWITCHING AND CONTROL

IMPORTANT:
Go to www.extron.com for the complete user guide, installation instructions, and specifications before connecting the product to the power source.

DVI 104 Tx/Rx • Setup Guide

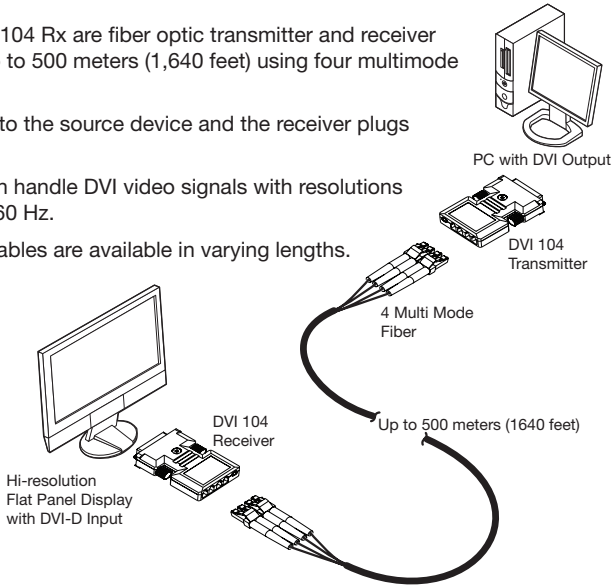
Description

The Extron DVI 104 Tx and DVI 104 Rx are fiber optic transmitter and receiver units that extend DVI signals up to 500 meters (1,640 feet) using four multimode fiber optic cables.

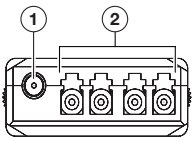
The transmitter plugs directly into the source device and the receiver plugs directly into the display device.

The transmitter/receiver pair can handle DVI video signals with resolutions up to 1920 x 1200 or 1080p at 60 Hz.

Optional four-fiber multimode cables are available in varying lengths.



Front Panel Features



① **Power input** — The transmitter and receiver both have plugs for a 3.5 mm jack to provide 5 VDC to the unit.

The center pin of the jack carries +5 VDC; the outer shell of the jack is the negative rail.

NOTES:

- If the source device is able to provide 5 VDC on pin 14 of its DVI output, the transmitter can draw power from the source device. If the source is a laptop or a PC using a PCI-E graphics card, it will not be able to provide enough power and the transmitter must be powered with a separate external power supply.
- The receiver must be powered by an external power supply through the power input plug.

② **LC Jacks** — Four fiber optic cables connect the transmitter to the receiver. The cables connect to the four female LC jacks in each of the units.

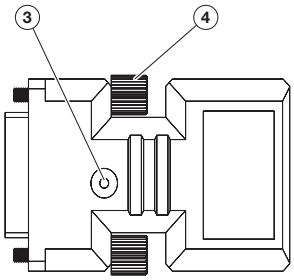
A label on the top panel identifies the unit as the transmitter or receiver and identifies the fiber optic port numbers and the power input.

NOTES:

- For the transmitter, port 1 is closest to the power input and port 4 is furthest away. For the receiver, port 4 is closest to the power input and port 1 is furthest away.
- Although the orientation is reversed, ports with the same number must be connected by the same cable, so that port 1 on the receiver is connected to port 1 on the transmitter, and so forth.

Insert the end of the fiber optic cable into the appropriate plug on the transmitter or receiver. The locking catch should snap into the slot and hold the cable securely in place.

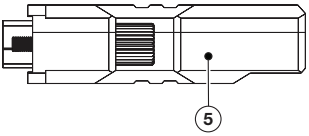
Top Panel Features



③ **LED** — Both the transmitter and receiver have LEDs on both sides that light green when the unit is receiving power. The LEDs on the transmitter also function as a status indicator for the EDID minder feature (see "**Setup and Operation**").

④ **Thumbscrews** — Use the thumbscrews to secure the transmitter or receiver to its connector.

Side Panel Features (Transmitter Only)



⑤ **EDID Minder storage button (transmitter only)** — A recessed switch activates the transmitter to capture and store EDID information from the display device. This allows the source device to provide a signal with a resolution and refresh rate matching the needs of the display device (see "**Setup and Operation**").

Setup and Operation

When using the DVI 104 Tx/Rx for the first time or if the display device is changed, it is essential to set up the EDID Minder. The setup process places EDID information on a EEPROM chip in the transmitter, which allows the video source to boot up correctly. This process is described below in **steps 1-6**. If you have already set up the EDID Minder, proceed to **step 7**.

1. Ensure that the source, the display, the transmitter, and the receiver are all powered off and that the fiber optic cables are unplugged from the transmitter and the receiver.
2. Apply power to the transmitter by inserting the cable from the external power supply into the input jack. The LEDs light a solid green.
3. Gently press and release the EDID Minder storage button, using a pointed device, such as a paper clip. Both LEDs should blink twice and turn off, although power is still connected.
4. Power on the display device.
5. Connect the transmitter directly to the DVI input of the display device. The LEDs on the transmitter blink rapidly for a few seconds to indicate that it is reading and storing EDID information from the display device.

   When the information has been captured and stored, the LEDs stop blinking. They may light steadily or they may turn off, depending on the display device.

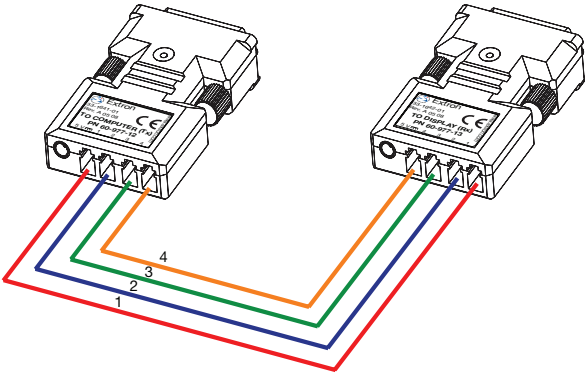
   NOTE: The transmitter must remain connected to both the display device and the power supply for the entire time that the EDID capture is taking place

6. Once the capture and storage are complete and the LEDs are no longer blinking, disconnect the transmitter from both the power and the display device.

NOTES:

- Once the transmitter has captured the EDID information from the display device, the information is stored on an EEPROM chip in the transmitter. Therefore, this calibration needs to be performed only once, as long as the display device is not changed.
- ***If the display device is changed***, repeat steps 1-6 to capture and store the EDID information for the new device.

7. Apply power to the receiver. The LEDs illuminate steadily.
8. Ensure that the display device is still powered on, connect the receiver directly to the DVI input, and tighten the thumbscrews.
9. Ensure that the PC or source is powered off, connect the transmitter directly to the DVI input source, and tighten the thumbscrews.
10. If required, apply power to the transmitter. The LEDs illuminate steadily.
11. Connect all four fiber optic cables between the transmitter and receiver. Pay attention to the orientation of the LC connectors and ensure that each cable joins ports with the same number (port 1 of the transmitter must be connected to port 1 of the receiver, and so forth.)



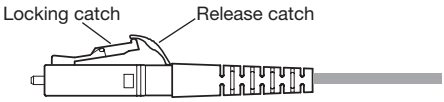
12. Turn on the source device. The source device reads the information stored in the transmitter and boots up to that resolution and refresh rate.

Troubleshooting

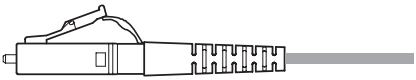
Display Does Not Show an Image

- Ensure that all plugs and jacks used by the external power supplies are firmly connected.
- Ensure that the LEDs for both the transmitter and receiver are lit.
- Ensure that the correct EDID information has been stored on the transmitter's EDID Minder. When using the DVI 104 Tx/Rx for the first time or if the display device is changed, it is essential to set up the EDID Minder as described in **steps 1-6** of "**Setup and Operation**" on the previous page.
- Ensure that the source device and output device are powered on and have booted up correctly.
- Ensure that the fiber optic cables are connecting the correct ports. A port on the transmitter must be connected to the same numbered port on the receiver. For example, port 1 of the transmitter must be connected to port 1 of the receiver.
- Ensure that the fiber optic cable jacks are securely seated.

- If the cable is loose or slips out of the slot easily, move the release catch from its normal position above the locking catch, to the adjusted position under the locking catch (see the figure on the next page). This provides the extra leverage required to keep the locking catch in place and hold the cable securely.



Normal Position



Adjusted Position

- Ensure that the transmitter is firmly plugged into the source device and the receiver is firmly plugged into the output device.
- Try resetting the system by unplugging and reconnecting the DVI connectors or the power jacks.
- Try rebooting the computer.

Screen is Distorted or Displays Noise

- Ensure that the cable length does not exceed 500 meters (1,640 feet).
- Ensure that the cables are high quality multimode cable and are terminated with securely fitting plugs.
- Ensure that the resolution is correctly set, using the EDID Minder (see "**Setup and Operation**").
- View the "Display Properties" of the source device to check the output resolution. The resolution and refresh rate must match the capabilities of the display device and must not exceed 1920 x 1200 at 60 Hz.
- Try resetting the system by unplugging and reconnecting the DVI connectors or the power jacks.

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